

CURRICULUM VITAE  
**David A. Dargatz DVM, MS, PhD**

USDA:APHIS Centers for Epidemiology and Animal Health  
2150 Centre Ave., Bldg. B, MS 2E7  
Fort Collins, CO 80526-8117  
Office Phone: (970) 494-7231  
Office Fax: (970) 494-7228  
E-mail: David.A.Dargatz@aphis.usda.gov

**EDUCATION**

**Oregon State University**, Department of Animal Science, Sep. 1975-Jun. 1978, Bachelor of Science

**Washington State University**, Department of Veterinary Science, Sep. 1978-Jun. 1982, Bachelor of Science, Doctor of Veterinary Medicine

**Colorado State University**, Department of Clinical Science, Sep. 1985-Jun. 1988, Master of Science

**Colorado State University**, Department of Animal Science, Sep. 1989-Jul. 1994, Doctor of Philosophy (Thesis: Health Practices in United States Beef Cow Operations)

**BOARD CERTIFICATION**

Diplomate Status: American College of Theriogenology, Sep. 1988

**EMPLOYMENT RECORD**

Jun. 1982-Nov. 1983: Large animal ambulatory clinician, College of Veterinary Medicine, Department of Clinical Sciences, Washington State University, Pullman, WA

Nov. 1983-Jun. 1985: Food animal ambulatory clinician, College of Veterinary Medicine and Biomedical Sciences, Colorado State University, Fort Collins, CO

Jun. 1985-Jun. 1988: Food animal medicine residency, College of Veterinary Medicine and Biomedical Sciences, Colorado State University, Fort Collins, CO

Sep. 1988-present: Analytic Epidemiologist and Beef Specialist, USDA:APHIS:VS, Centers for Epidemiology and Animal Health, Fort Collins, CO

- Study leader of NAHMS national studies relevant to beef cattle production including the use of multidisciplinary teams to identify the study focus, design the study, analyze and interpret the data, and develop reports and info sheets to report the findings to all interested groups:
  - Cow/calf Health and Productivity Audit (CHAPA) (1993)
  - Cattle on Feed Evaluation (COFE) (1994)
  - Beef '97 (1997)
  - Feedlot '99 (1999)
- Developed an ongoing monitoring system to evaluate health of cattle in feedlots

- Collaboration on the National Antimicrobial Resistance Monitoring System (NARMS) including the design, analysis, and interpretation of the data
- Consultation and collaboration with Republic of Uruguay on design, implementation, and analysis of country-wide epidemiologic studies of animal health

## **SERVICE**

Member—NARMS Interagency Working Group, 1995-present

Member--National Johne's Working Group Education Committee, 1996-2003

Ad hoc reviewer for USDA Natural Resources Initiatives Competitive Grants Program (NRICGP), 1997, 1998, 1999, 2003

Affiliate Faculty--Colorado State University, College of Veterinary Medicine and Biomedical Sciences, Department of Clinical Sciences, 1997-present

## **MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS**

American Veterinary Medical Association  
 American Association of Bovine Practitioners  
 Society for Theriogenology  
 Alpha Psi  
 Academy of Veterinary Consultants  
 United States Animal Health Association  
 Phi Zeta Honor Society  
 Colorado Veterinary Medical Association

## **PROFESSIONAL INTERESTS**

Interactions of management and health in beef cattle production systems

## **CURRENT GRADUATE STUDENTS**

### **Committee Member:**

- Rachel Strohmeyer, MS candidate--enrolled at Colorado State University, College of Veterinary Medicine and Biomedical Sciences, Department of Clinical Sciences. Areas of study: Potential foodborne pathogens in animal feeds and foods and their antimicrobial susceptibility patterns
- Susan Spidel, PhD candidate: enrolled at Colorado State University, College of Veterinary Medicine and Biomedical Sciences, Department of Environmental Health. Area of study: Analysis applications for clustered data
- Denise Bolte, MS candidate: enrolled at Colorado State University, College of Veterinary Medicine and Biomedical Sciences, Department of Clinical Sciences. Area of study: Prevalence and antimicrobial resistance patterns of enteric organisms from small animal populations.

## PREVIOUS GRADUATE STUDENTS

### Committee Member:

- Guy Loneragan BVSc MS, PhD candidate; enrolled at Colorado State University, Department of Clinical Sciences. Area of study: Respiratory Disease in Feedlot Cattle. Thesis title: Acute Interstitial Pneumonia, Bovine Respiratory Disease Complex and Potential Pneumotoxicity in Feedlot Cattle.
- Kirsten Chmielewski, MS candidate; enrolled at Colorado State University, College of Veterinary Medicine and Biomedical Sciences, Department of Environmental Health. Area of study: Antimicrobial use patterns in a veterinary teaching hospital
- Laura Behrends, MS candidate; enrolled at Colorado State University, Department of Animal Science. Area of study: Beef quality
- Matt Brooks, MS candidate--enrolled at Colorado State University, College of Veterinary Medicine and Biomedical Sciences, Department of Environmental Health. Area of study: Antimicrobial susceptibility testing in diagnostic laboratories. Thesis title: Survey of Antimicrobial Susceptibility Testing Practices of Veterinary Diagnostic Laboratories in the United States.
- Bruce Wagner MS, PhD candidate--enrolled at Colorado State University, College of Veterinary Medicine and Biomedical Sciences, Department of Clinical Sciences. Area of study: Survey sampling methods to estimate prevalence of disease. Thesis title: Sampling and Estimation Techniques for Surveillance and Monitoring

## PUBLICATIONS

### Refereed

1. Prieur DJ, **Dargatz DA**. Multiple visceral anomalies in a calf. *Veterinary Pathology* 21:452-454, 1984.
2. **Dargatz DA**, Mortimer RG, Ball L. Vesicular adenitis of bulls. A review. *Theriogenology* 28:513-521, 1987.
3. Gearhart MA, Wingfield WE, Knight AP, Smith JA, **Dargatz DA**, Boon JA, Stokes CA. The use of real-time ultrasonography for assessing the reproductive status of the ewe. *Theriogenology* 30:323-337, 1988.
4. Salman MD, **Dargatz DA**, Kimberling CV, Ellis RP. An economic evaluation of various treatments for contagious foot rot in sheep, using decision tree analysis. *Journal of the American Veterinary Medical Association* 193:195-205, 1988.
5. Salman MD, **Dargatz DA**, Kimberling CV, Reif JS, Hopper GE. Rates of diseases and their costs in two Colorado sheep feedlots. *Journal of the American Veterinary Medical Association* 193:1518-1523, 1988.
6. Reif JS, Wimmer L, Smith JA, **Dargatz DA**, Cheney JM. Human cryptosporidiosis associated with an epizootic in calves. *American Journal of Public Health* 79:1528-1530, 1989.

7. **Dargatz DA**, Smith JA, Knight AP, Farin PW, Kimberling CV. Antimicrobial therapy for rams with *Brucella ovis* infection of the urogenital tract. *Journal of the American Veterinary Medical Association* 196:605-610, 1990.
8. **Dargatz DA**, Salman MD. Decision tree analysis. *Compendium on Continuing Education for the Practicing Veterinarian* 12:433-440, 1990.
9. **Dargatz DA**, Salman MD. The use of breakeven curves in decision making. *Compendium on Continuing Education for the Practicing Veterinarian* 12:1347-1351, 1990.
10. Traub-Dargatz JL, McKinnon AO, Thrall MA, Jones RL, Bruyninckx W, Blancquaert AMB, **Dargatz DA**. Evaluation of clinical signs of disease, bronchoalveolar and tracheal wash analysis, and arterial blood gas tensions in 13 horses with chronic obstructive pulmonary disease treated with prednisone, methyl sulfonmethane, and clenbuterol hydrochloride. *American Journal of Veterinary Research* 53:1908-1916, 1992.
11. Traub-Dargatz JL, Fettman MJ, **Dargatz DA**. Identifying the cause of weight loss in horses. *Veterinary Medicine* 87:346-356, 1992.
12. Tubbs RC, Hurd HS, **Dargatz DA**, Hill GW. Prewaning morbidity and mortality in the United States swine herd. *Swine Health and Production* 1:21-28, 1993.
13. Traub-Dargatz JL, **Dargatz DA**. A retrospective study of vein thrombosis in horses treated with intravenous fluids in a veterinary teaching hospital. *Journal of Veterinary Internal Medicine* 8:264-266, 1994.
14. Heinrichs AJ, Wells SJ, Hurd HS, Hill GW, **Dargatz DA**. The national dairy heifer evaluation project: A profile of heifer management practices in the United States. *Journal of Dairy Science* 77:1548-1555, 1994.
15. Wittum TE, Dewey CE, Hurd HS, **Dargatz DA**, Hill GW. Herd- and litter-level factors associated with the incidence of diarrhea morbidity and mortality in piglets 1 to 3 days of age. *Swine Health and Production* 3:99-104, 1995.
16. Dewey CE, Wittum TE, Hurd S, **Dargatz DA**, Hill GW. Herd- and litter-level factors associated with the incidences of diarrhea morbidity and mortality in piglets 4-14 days of age. *Swine Health and Production* 3:105-112, 1995.
17. **Dargatz DA**, Hill GW. Analysis of survey data. *Preventive Veterinary Medicine* 28:225-237, 1996.
18. Dickinson CE, Traub-Dargatz JL, **Dargatz DA**, Bennett DG, Knight AP. Rattlesnake venom poisoning in horses: 32 cases (1973-1993). *Journal of the American Veterinary Medical Association* 208:1866-1871, 1996.

19. Wells SJ, **Dargatz DA**, Ott SL. Factors associated with mortality to 21 days of life in dairy heifers in the United States. *Preventive Veterinary Medicine* 29:9-19, 1996.
20. **Dargatz DA**, Ross PF. Blood selenium concentrations in beef cows and heifers on 253 cow-calf operations in 18 states. *Journal of Animal Science* 74:2891-2895, 1996.
21. **Dargatz DA**, Wells SJ, Thomas LA, Hancock DD, Garber LP. Factors associated with presence of *Escherichia coli* O157 in feces of feedlot cattle. *Journal of Food Protection* 60:466-470, 1997.
22. Hancock DD, Rice DH, Thomas LA, **Dargatz DA**, Besser TE. Epidemiology of *Escherichia coli* O157 in feedlot cattle. *Journal of Food Protection* 60:462-465, 1997.
23. Fedorka-Cray PJ, **Dargatz DA**, Thomas LA, Gray JT. Survey of *Salmonella* serotypes in feedlot cattle. *Journal of Food Protection* 61:525-530, 1998.
24. **Dargatz DA**, Wells SJ, Fedorka-Cray PJ, Akkina J. The veterinarian's role in diagnosis, treatment, and prevention of multidrug resistant *Salmonella typhimurium* DT104. *Bovine Practitioner* 32:1-6, 1998.
25. Forde K, Hillberg-Seitzinger A, **Dargatz D**, Wineland N. The availability of state-level data on interstate cattle movements in the United States. *Preventive Veterinary Medicine* 37:209-217, 1998.
26. Fedorka-Cray PJ, **Dargatz DA**, Wells SJ, Wineland NE, Miller MA, Tollefson L, Petersen KE. Impact of antimicrobial use in veterinary medicine. *Journal of the American Veterinary Medical Association* 213:1739-1741, 1998.
27. Tillotson K, McCue PM, Granstrom DE, **Dargatz DA**, Smith MO, Traub-Dargatz JL. Seroprevalence of antibodies to *Sarcocystis neurona* in horses residing in northern Colorado. *Journal of Equine Veterinary Science* 19:122-126, 1999.
28. **Dargatz DA**, Garry FB, Clark GB, Ross PF. Serum copper concentrations in beef cows and heifers on 253 cow-calf operations in 18 states. *Journal of the American Veterinary Medical Association* 215:1828-1832, 1999.
29. East LM, **Dargatz DA**, Traub-Dargatz JL, Savage CJ. Foaling-management practices associated with the occurrence of enterocolitis attributed to *Clostridium perfringens* infection in the equine neonate. *Preventive Veterinary Medicine* 46:61-74, 2000.
30. Sanderson MW, **Dargatz DA**. Risk factors for high herd level calf morbidity risk from birth to weaning in USA beef herds. *Preventive Veterinary Medicine* 44:97-106, 2000.
31. Sanderson MW, **Dargatz DA**, Garry FB. Biosecurity practices of beef cow-calf producers and opportunities for veterinary involvement. *Journal of the American Veterinary Medical Association* 217:185-189, 2000.

32. **Dargatz DA**, Fedorka-Cray PJ, Ladely SR, Ferris KE. Survey of *Salmonella* serotypes shed in feces of beef cows and their antimicrobial susceptibility patterns. *Journal of Food Protection* 63:1648-1653, 2000.
33. Wells SJ, Fedorka-Cray PJ, **Dargatz DA**, Ferris K, Green A. Fecal shedding of *Salmonella* spp. by dairy cows on farm and at cull cow markets. *Journal of Food Protection* 64:3-11, 2000.
34. **Dargatz DA**, Byrum BA, Barber LK, Sweeney RW, Whitlock RH, Shulaw WP, Jacobson H, Stabel JR. Evaluation of a commercial enzyme-linked immunosorbent assay for the diagnosis of paratuberculosis in cattle. *Journal of the American Veterinary Medical Association* 218:1163-1166, 2001.
35. **Dargatz DA**. Eficiencia Reproductiva en Rodeos de Cría. *Jornadas Uruguayas de Buiatría* 29:61-64. 2001.
36. **Dargatz DA**, Byrum BA, Hennager SG, Barber LK, Kopral CA, Wagner BA, Wells SJ. Prevalence of antibodies against *Mycobacterium avium* subsp *paratuberculosis* among beef cow-calf herds. *Journal of the American Veterinary Medical Association* 219:497-501, 2001.
37. Loneragan GH, **Dargatz DA**, Morley PS, Smith MA. Trends in mortality ratios among cattle in U.S. feedlots. *Journal of the American Veterinary Medical Association* 219:1122-1127, 2001.
38. Traub-Dargatz JL, George JL, **Dargatz DA**, Morley PS, Southwood LL, Tillotson K. Survey of complications and antimicrobial use on equine patients at veterinary teaching hospitals that underwent surgery because of colic. *Journal of the American Veterinary Medical Association* 220:1359-1365, 2002.
39. **Dargatz DA**, Fedorka-Cray PJ, Ladely SR, Ferris K, Green AL, Headrick ML. Antimicrobial susceptibility patterns of *Salmonella* isolates from cattle in feedlots. *Journal of the American Veterinary Medical Association* 221:268-272, 2002.
40. Gould DH, **Dargatz DA**, Garry FB, Hamar DW. Potentially hazardous sulfur conditions on beef cattle ranches in the United States. *Journal of the American Veterinary Medical Association* 221:673-677, 2002.
41. Frye MA, Bright JM, **Dargatz DA**, Fettman MJ, Frisbee DD, Baker DC, Traub-Dargatz JL. A comparison of dobutamine infusion to exercise as a cardiac stress test in healthy horses. *Journal of Veterinary Internal Medicine* 17:58-64, 2002.
42. Wagner BA, **Dargatz DA**, Salman MD, Morley PS, Wittum TE, Keefe TJ. Comparison of sampling techniques for measuring antimicrobial susceptibility of enteric *Escherichia coli* recovered from feedlot cattle. *American Journal of Veterinary Research* 63(12):1662-1670, 2002.

43. Wagner BA, Salman MD, **Dargatz DA**, Morley PS, Wittum TE, Keefe TJ. Factor analysis of minimum inhibitory concentrations for *Escherichia coli* isolated from feedlot cattle to model the relationships among antimicrobial resistance outcomes. *Preventive Veterinary Medicine* 53(3):127-139, 2003.
44. **Dargatz DA**, Fedorka-Cray PJ, Ladely SR, Koprak CA, Ferris KE, Headrick ME. Prevalence and antimicrobial susceptibility of *Salmonella* spp. isolates from U.S. cattle in feedlots in 1999 and 2000. *Journal of Applied Microbiology* 95(4):753-761, 2003.
45. Wagner BA, Morley PS, **Dargatz DA**, Wittum TE, Keefe TJ, Salman MD. Short-term repeatability of measurements of antimicrobial susceptibility in *Escherichia coli* from feces of feedlot cattle. *Journal of Veterinary Diagnostic Investigation* 15:535-542, 2003.
46. Wagner BA, **Dargatz DA**, Morley PS, Keefe TJ, Salman MD. Analysis methods for bacterial antimicrobial resistance outcomes. *American Journal of Veterinary Research* 64(12):1570-1579, 2003.
47. **Dargatz DA**, Dewell GA, Mortimer RG. Calving and calving management of beef cows and heifers on cow-calf operations in the United States. *Theriogenology* 61:997-1007, 2004.
48. **Dargatz DA**, Byrum BA, Collins MT, Goyal SM, Hietala SK, Jacobson RH, Koprak CA, Martin BM, McCluskey BJ, Tewari D. A multi-laboratory evaluation of a commercial ELISA test for the detection of antibodies against *Mycobacterium avium* subsp. *paratuberculosis* in cattle. Submitted to *Journal of Veterinary Diagnostic Investigation*.

#### **Non-refereed professional**

1. **Dargatz DA**, Miller LM, Krieger RI, Gay CC. Toxicity for sheep associated with zinc sulphate footbaths. *Agri-Practice* 7(2):27-30, 1986.
2. **Dargatz DA**, Johnson LW. Castrating the llama: a step-by-step guide. *Veterinary Medicine* 82:625-627, 1987.

#### **Non-refereed lay literature**

1. **Dargatz DA**, Mickelsen WD. Trichomoniasis now a threat to cattle. *Washington Farmer Stockman*, May 1983.
2. Mathews KH, Buzby JC, Tollefson LR, **Dargatz DA**. Livestock drugs: more questions than answers? *Agricultural Outlook* 18-21, September 2001.

#### **Book chapters**

1. Ball L, **Dargatz DA**, Cheney JM, Mortimer RG. Control of venereal disease in infected herds. *Veterinary Clinics North America (Food Animal Practice)* 3:561-574, 1987.

2. **Dargatz DA**, Salman MD. Application of epidemiologic principles and methods to investigating and controlling equine infectious diseases. *Veterinary Clinics North America* (Equine Practice) 9:247-255, 1993.
3. Traub-Dargatz JL, **Dargatz DA**. Clinical epidemiology: application to laboratory data. *Veterinary Clinics North America* (Equine Practice) 11:515-524, 1995.
4. Wineland NE, **Dargatz DA**. The national animal health monitoring system—a source of on-farm information. *Veterinary Clinics North America* (Food Animal Practice) 14(1):127-139, 1998.
5. Smith RA, Griffin DD, **Dargatz DA**. The risks and prevention of contamination of beef feedlot cattle: the perspective of the United States of America. *OIE Revue Scientifique et Technique*, Contamination of animal products: prevention and risks for public health 16(2):359-368, 1997.
6. **Dargatz DA**, Traub-Dargatz JL. Epidemiology. In *Equine Medicine Secrets*, Savage K (ed.). Hanley & Belfus Inc., Philadelphia, 331-338, 1999.
7. **Dargatz DA**, Traub-Dargatz JL, Sangster NC. Antimicrobial and anthelmintic resistance. *Veterinary Clinics North America* (Equine Practice) 16(3):515-537, 2000.
8. **Dargatz DA**, Garry FB, Traub-Dargatz JL. An introduction to biosecurity of cattle operations. *Veterinary Clinics North America* (Food Animal Practice) 18:1-5, 2002.
9. Wineland NE, **Dargatz DA**. Dissemination of surveillance findings. *Animal Disease Surveillance and Survey Systems*, Salman MD (ed.). Iowa State Press, Ames, Iowa, 177-184.

## Proceedings

1. **Dargatz DA**, Salman MD. The use of decision tree analysis to suggest an optimum treatment/prevention program for contagious foot rot in sheep. *8th Annual Western Food Animal Research Conference*. March 2-4, 1987.
2. **Dargatz DA**, Knight AP, Smith JA. Antibiotic therapy of *Brucella ovis* infection of rams. *8th Annual Western Food Animal Research Conference*. March 2-4, 1987.
3. Ball L, **Dargatz DA**, Kimberling CV. Breeding soundness evaluation, electro-ejaculation, and male genital tract disorders. *1st Joint Meeting of the Pennsylvania and Maryland Veterinary Medicine Association*. October 13-16, 1988.
4. Pointon AM, Morrison R, Hill G, **Dargatz DA**, Dial G. Monitoring pathology in slaughtered stock - guidelines for selecting sample size and interpreting results. *American Association of Swine Practitioners*. March 4-6, 1990.



5. **Dargatz DA**, Hurd S, Walker K, Hill G, Bleem A, Farrar J, Hueston W, Cowen P. National Swine Survey. *Proceedings American Association of Swine Practitioners*. March 4-6, 1990.
6. Hurd HS, **Dargatz DA**. The national animal health monitoring system swine survey: field test results, current and future activities. *Minnesota Swine Conference for Veterinarians*. September 16-18, 1990.
7. Pointon AM, Morrison RB, Hill G, **Dargatz D**, Dial G. Monitoring pathology in slaughtered stock: guidelines for selecting sample size and interpreting results. *Minnesota Swine Conference for Veterinarians*. September 16-18, 1990.
8. **Dargatz DA**, Hurd HS, Salman MD. Factors affecting health and productivity of swine in the farrowing to weaning period. *Conference of Research Workers in Animal Disease*. November 5-6, 1990.
9. Hurd HS, **Dargatz DA**, Garber L. Factors affecting preweaning morbidity and mortality NAHMS swine survey: field test results. *Symposium '90 on Epidemiology, Zoonoses, and Economics*. November 13-15, 1990.
10. Alexander JL, **Dargatz DA**, Surawicz T. Results of the NAHMS national swine survey's biological and environmental sampling component and the detected effect on swine health. *Conference of Research Workers in Animal Disease*. Chicago, Illinois, November 11-12, 1991.
11. **Dargatz DA**, Wittum TE, Hill GW. Risk factors for health events among swine from farms participating in the National Animal Health Monitoring System swine study. *Conference of Research Workers in Animal Disease*. Chicago, Illinois, November 11-12, 1991.
12. **Dargatz DA**, Hill GW, Surawicz TS. Population estimates from the national swine study of the National Animal Health Monitoring System (NAHMS). *Conference of Research Workers in Animal Disease*. Chicago, Illinois, November 11-12, 1991.
13. Crooks AC, Hurd HS, **Dargatz DA**, Hill GW. Economic cost of piglet mortality in the farrowing to weaning phase: a report of the NAHMS national swine survey. *American Association of Swine Practitioners*. March 1-3, 1992.
14. **Dargatz DA**, Miller WC. The relative impact of productivity measures on profitability in Rocky Mountain beef herds. *13th Annual Western Food Animal Disease Research Conference*. April 1-3, 1992.
15. **Dargatz DA**, Hill GW. Analysis of complex survey data: examples from the national swine survey. *13th Annual Western Food Animal Disease Research Conference*. April 1-3, 1992.

16. Miller WC, **Dargatz DA**. Evaluation of key production parameters for western ranch operations using linear programming. Western Section, *American Society of Animal Science*. July 8-10, 1992.
17. Hill GW, **Dargatz DA**. Health and productivity of the U.S. swine population: results of the National Animal Health Monitoring System's national swine survey. Western Section, *American Society of Animal Science*. July 8-10, 1992.
18. **Dargatz DA**, Miller WC. Integrated resource management through mathematical optimization techniques. *American Association of Bovine Practitioners*. August 31-September 4, 1992.
19. **Dargatz DA**. The National Animal Health Monitoring System's beef cow-calf health and productivity audit. *Conference of Research Workers in Animal Diseases*. Chicago, Illinois, November 9-10, 1992.
20. **Dargatz DA**, Kopral C, Deveau T. Patterns of occurrence of *Eosinophilic myositis* among slaughter cattle. *Conference of Research Workers in Animal Diseases*. Chicago, Illinois, November 9-10, 1992.
21. Hill GW, **Dargatz DA**. Swine and dairy national study designs for animal health monitoring. *International Conference on Establishment Surveys*. Buffalo, New York, June 27-30, 1993.
22. **Dargatz DA**, Hill GW. Study design of the National Cow/Calf Health and Productivity Audit (CHAPA). *International Conference on Establishment Surveys*. Buffalo, New York, June 27-30, 1993.
23. **Dargatz DA**, Wells SJ. Calving and breeding management procedures in United States beef herds. *American Association of Animal Science*. July 11-15, 1994.
24. **Dargatz DA**, Hueston WD. U.S. cow /calf health and preventative medicine practices: findings from the APHIS:VS National Animal Health Monitoring System. October 29-November 4, 1994.
25. Deveau TP, **Dargatz DA**. *Eosinophilic myositis*: an interagency approach to solve a producer association's problem. *Epidemiology and Economics Symposium*. Fort Collins, Colorado, May 31-June 1, 1995.
26. Hancock D, **Dargatz DA**. Implementation of HACCP on the farm. *Hazard Analysis and Critical Control Point (HACCP) Symposium*. Chicago, Illinois. November 12, 1995.
27. Ott SL, **Dargatz DA**. Management practices associated with high profit cow-calf herds. *Conference of Research Workers in Animal Diseases*. Chicago, Illinois. November 13-14, 1995.

28. Fedorka-Cray PJ, **Dargatz DA**, Thomas LA, Gray JT. *Salmonella* in feedlot cattle: a survey. *16th Annual USDA Cooperative Food Safety Research Workshop*. Crystal City, Virginia. December 13, 1995.
29. Corah L, **Dargatz D**, Peters C. Trace mineral and related nutrient levels-national forage survey. *Kansas State University Cattlemen's Day*. Manhattan, Kansas. March 1, 1996.
30. **Dargatz DA**. *Escherichia coli* O157 and *Salmonella* spp in feces of feedlot cattle. *58th Annual Conference for Veterinarians*. Fort Collins, Colorado. January 4-6, 1997.
31. **Dargatz DA**, Fedorka-Cray PJ. *Salmonella* shedding by feedlot cattle in the United States. *Epidemiologie et Sante Animale VIII ISVEE*. Paris, France, p. 04.A41. July 1997.
32. Wells SJ, Garber LG, Wagner B, **Dargatz DA**. Factors associated with papillomatous digital dermatitis on U.S. dairy operations. *Epidemiologie et Sante Animale VIII ISVEE*. Paris, France, p. 05.07. July 1997.
33. Bush EJ, Rothenberger N, **Dargatz DA**. Serving up surveillance data: what to do with it once you have collected it. *Epidemiologie et Sante Animale VIII ISVEE*. Paris, France, p. 07.05. July 1997.
34. Holcomb HL, Fedorka-Cray PJ, Bush EJ, **Dargatz DA**, Tollefson LK. Antimicrobial susceptibility of *Salmonella* isolates from swine. *2nd International Symposium Epidemiological Control of Salmonella in Pork*. Copenhagen, Denmark, p. 66-68. August 20-22, 1997.
35. Fedorka-Cray PJ, Holcomb HL, Tollefson L, **Dargatz DA**. Antimicrobial susceptibility of *Salmonella* isolates of veterinary origin. *American Society of Microbiologists Annual Meeting*, p. P48, 444. 1997.
36. Fedorka-Cray PJ, Holcomb HL, Bush EJ, **Dargatz DA**, Tollefson LK. Resistance and sensitivity of *Salmonella* isolates. *Leman Swine Conference*. Minneapolis, Minnesota, p. 14-22. September 1997.
37. **Dargatz DA**, Fedorka-Cray PJ, Wineland NE, Tollefson L. Description of the U.S. Monitoring Systems - The National Antimicrobial Susceptibility Monitoring System. *Swine Health Summit*. Williamsburg, Virginia, p. 48-50. November 12-13, 1997.
38. **Dargatz DA**, Traub-Dargatz JL. Diagnostic testing: what do we need to keep in mind? *59th Annual Conference for Veterinarians*. Fort Collins, Colorado, p. 30-37. January 10-12, 1998.
39. Fedorka-Cray PJ, Miller M, Tollefson L, **Dargatz DA**. Development of resistance in *Salmonella* isolates of veterinary origin. Antimicrobial susceptibility patterns of *Salmonella* isolates of veterinary origin. *Proceedings American Association of Veterinary Pharmacology and Therapeutics (AAVPT) Symposium*. The Role of

Veterinary Therapeutics in Bacterial Resistance Development: Animal and Public Health Perspectives. College Park, Maryland, p. 130-137. January 19-21, 1998.

40. Fedorka-Cray PJ, **Dargatz DA**, Miller M, Tollefson L. Antimicrobial susceptibility patterns of *Salmonella* isolates of veterinary origin. *American Association of Veterinary Pharmacology and Therapeutics (AAVPT) Symposium. Human Medical Impact of Food Animal Infectious Diseases and Their Treatment*. College Park, Maryland, p. 24. January 19-21, 1998.
41. Fedorka-Cray PJ, Miller M, Tollefson L, **Dargatz DA**. Development of resistance in *Salmonella* isolates of veterinary origin. *Proceedings American Association of Swine Practitioners*. Des Moines, Iowa, p. 173-176. March 7-10, 1998.
42. Fedorka-Cray PJ, Miller MA, **Dargatz DA**, Tollefson L. Veterinary perspectives on the use of antibiotics in animal production systems. *International Life Sciences Institute Annual Meeting*. 1998.
43. Fedorka-Cray PJ, Miller MA, **Dargatz DA**, Tollefson L. Antimicrobial susceptibility patterns of *Salmonella* isolates of veterinary origin. *Poultry Science Association*. State College, Pennsylvania. August 2-5, 1998.
44. **Dargatz DA**. The National Antimicrobial Susceptibility Monitoring System. *Colorado Veterinary Medical Association*. Snowmass, Colorado, p. 1-7. September 19-23, 1998.
45. **Dargatz DA**, Johnson R, Wells SJ, Koprak CA, Alstad AD, Schmitt BJ. Descriptive epidemiology of bovine leukosis in U.S. dairy and beef cattle. *102nd Annual Meeting of the United States Animal Health Association*. Minneapolis, Minnesota, p. 120-124. October 3-9, 1998.
46. Fedorka-Cray PJ, **Dargatz DA**. Antimicrobial resistance in *Salmonella* isolates of veterinary origin. *102nd Annual Meeting of the United States Animal Health Association*. Minneapolis, Minnesota, p. 580. October 3-9, 1998.
47. **Dargatz DA**, Wells SJ. Johne's disease on U.S. Beef operations: results from the NAHMS Beef '97 study. *6th International Colloquium on Paratuberculosis*. Melbourne, Australia, p. 59-61. February 14-18, 1999.
48. Wells SJ, Wagner BA, **Dargatz DA**. Factors associated with *M. a. paratuberculosis* infection in U.S. dairy herds. *6th International Colloquium on Paratuberculosis*. Melbourne, Australia, p. 62-65. February 14-18, 1999.
49. **Dargatz DA**, Fedorka-Cray PJ, Petersen KE. Prevalence and distribution of antimicrobial resistance. *American Association of Bovine Practitioners*. Nashville, Tennessee, p. 10-11. September 1999.
50. Fedorka-Cray PJ, Petersen KE, **Dargatz DA**, Tollefson L, Wineland NE, Headrick M, Hollinger K, Ferris K. National Antimicrobial Resistance Monitoring System: results

for swine. *3rd International Symposium, Salmonella in Swine*. Washington, DC, August 5-7, 1999. In press.

51. **Dargatz DA**, Fedorka-Cray PJ, Petersen KE, Tollefson L, Wineland NE, Hollinger K, Headrick M. A system to describe antimicrobial resistance among human and animal populations. *USGS, Effects of Animal Feeding Operations (AFOs) on Hydrologic Resources and the Environment*. Fort Collins, Colorado, August 30-September 1, 1999. <http://water.usgs.gov/owq/AFO/proceedings/afo/html/dargatz.html>
52. **Dargatz DA**, Fedorka-Cray PJ, Petersen KE, Headrick M. A National Antimicrobial Resistance Monitoring System for enteric bacteria (NARMS-EB). *103rd Annual Meeting of the United States Animal Health Association*. San Diego, California, p. 87-89. October 7-14, 1999.
53. Landry KE, Morley PS, **Dargatz DA**. Antimicrobial drug use in a veterinary teaching hospital. *Conference of Research Workers in Animal Disease*. Chicago, Illinois. November 8-9, 1999.
54. Sanderson MW, **Dargatz DA**. Risk factors for high herd level calf morbidity rate from birth to weaning in U.S. beef herds. *Conference of Research Workers in Animal Disease*. Chicago, Illinois, November 8-9, 1999.
55. **Dargatz DA**, Fedorka-Cray PJ, Ladely SR. Antimicrobial resistance patterns of *Salmonella* isolates from cattle in feedlots and on cow-calf operations. *Conference of Research Workers in Animal Disease*. Chicago, Illinois. November 8-9, 1999.
56. Wells SJ, Fedorka-Cray PJ, **Dargatz DA**, Ferris K. *Salmonella* serotype and antimicrobial susceptibility patterns in U.S. dairy cows on-farm and at markets. *Conference of Research Workers in Animal Disease*. Chicago, Illinois. November 8-9, 1999. In press.
57. Sanderson MW, **Dargatz DA**. Effects of dystocia and confined calving on calf-morbidity rate from birth to weaning. *Research Day*, p. 17. Fort Collins, Colorado, January 29, 2000. *Kansas State University Cattlemen's Day 2000*, p. 77-79. Manhattan, Kansas, March 2000.
58. Tillotson K, Granstrom D, **Dargatz DA**, Smith MO, Traub-Dargatz JL. Seroprevalence of antibodies to *Sarcocystis neurona* in horses residing in northern Colorado. *Phi Zeta Research Day*. March 2000.
59. Landry KE, Morley PS, **Dargatz DA**. Antimicrobial drug use in a veterinary teaching hospital. *9th International Society for Veterinary Epidemiology and Economics Symposium*. Abstract #549. Breckenridge, Colorado, August 7-11, 2000.
60. Loneragan GH, **Dargatz DA**, Morley PS, Smith MA. Cattle mortalities in feedlots participating in the NAHMS sentinel feedlot monitoring program. *9th International*

*Society for Veterinary Epidemiology and Economics Symposium*, p. 433-436.  
Breckenridge, Colorado, August 7-11, 2000.

61. **Dargatz DA**, Loneragan GH, Wagner BA, Garber LP, Hill GW, Rodriguez JM, Wineland NE. Health and management of cattle in United States feedlots. *9th International Society for Veterinary Epidemiology and Economics Symposium*, p. 22-25. Breckenridge, Colorado, August 7-11, 2000.
62. **Dargatz DA**, Fedorka-Cray PJ, Ladley SR, Wineland NE, Ferris KE. Antimicrobial susceptibility patterns of *Salmonella* isolates from beef cattle. *9th International Society for Veterinary Epidemiology and Economics Symposium*, p. 238-241. Breckenridge, Colorado, August 7-11, 2000.
63. Landry KE, Morley PS, **Dargatz DA**. Antimicrobial drug use in a veterinary teaching hospital. *9th International Society for Veterinary Epidemiology and Economics Symposium*, p. 244-246. Breckenridge, Colorado, August 7-11, 2000.
64. Brooks MB, Morley PS, **Dargatz DA**, Hyatt DR. A survey of antimicrobial susceptibility testing practices of veterinary diagnostic laboratories in the United States. *9th International Society for Veterinary Epidemiology and Economics Symposium*, p. 448-450. Breckenridge, Colorado, August 7-11, 2000.
65. Wittum TE, Taylor CL, **Dargatz DA**. Factors associated with low serum copper levels in U.S. beef herds. *81st Annual Meeting of Conference of Research Workers in Animal Disease*. Abstract #43. Chicago, Illinois, November 12-14, 2000.
66. **Dargatz DA**, Loneragan GH, Wagner BA, Garber LP, Hill GW, Rodriguez JM, Wineland NE. A survey of health and management of cattle in feedlots in the United States. *81st Annual Meeting of Conference of Research Workers in Animal Disease*. Abstract #45. Chicago, Illinois, November 12-14, 2000.
67. Frye M, Bright J, **Dargatz DA**, Traub-Dargatz J. The use of dobutamine as a pharmacologic cardiac stressor in the equid. *2nd Annual Phi Zeta Research Day of the Theta Chapter*. Fort Collins, Colorado, p. 8. January 27, 2001.
68. **Dargatz DA**, Morley P. Antimicrobial resistance: issues and ramifications. *19th American College of Veterinary Internal Medicine*, p. 371-378. Denver, Colorado.
69. **Dargatz DA**, Wagner BA, Loneragan GH, Garber LP, Hill GW, Wineland NE. Animal health, management, and foodborne pathogens in beef feedlots: results of the NAHMS Feedlot '99 Study, *34<sup>th</sup> Annual Convention American Association of Bovine Practitioners*, p. 72-73. Vancouver, British Columbia, September 13-15, 2001.
70. Brooks MB, Morley PS, **Dargatz DA**, Hyatt DR, Salman MD. A survey of antimicrobial susceptibility testing practices of veterinary diagnostic laboratories in the U.S. *82nd Annual Meeting of the Conference of Research workers in Animal Diseases*. St. Louis, Missouri.

71. Bolte D, Hyatt DR, Morley PS, **Dargatz DA**. Comparison of antimicrobial resistant bacteria from dogs in a veterinary teaching hospital. *82nd Annual Meeting of the Conference of Research Workers in Animal Diseases*. St. Louis, Missouri.
72. Hurwich AS, Monke HJ, Wittum TE, Morley PS, **Dargatz DA**. Antimicrobial resistance patterns of enteric *Escherichia coli* and *Salmonella* recovered from Ohio dairy herds. *82nd Annual Meeting of the Conference of Research Workers in Animal Diseases*. St. Louis, Missouri.
73. Migliaccio A, Morley PS, Hyatt DR, Wittum TE, **Dargatz DA**, Miller KC, Smith DR. Comparison of antimicrobial resistance patterns of *Escherichia coli* and *Salmonella* isolated from feedlot cattle using two different sampling methods. *82nd Annual Meeting of the Conference of Research Workers in Animal Diseases*. St. Louis, Missouri.
74. Chmielewski KE, Morley PS, **Dargatz DA**. Antimicrobial drug use in a veterinary teaching hospital. *82nd Annual Meeting of the Conference of Research Workers in Animal Diseases*. St. Louis, Missouri.
75. Wagner BA, Salman MD, **Dargatz DA**, Morley PS, Wittum TE, Keefe T. Factor analysis of minimum inhibitory concentration for *Escherichia coli* isolated from feedlot cattle. *82nd Annual Meeting of the Conference of Research Workers in Animal Diseases*. St. Louis, Missouri.
76. Migliaccio A, Morley PS, Hyatt DR, **Dargatz DA**, Wittum TE, Miller KC, Smith DR. Comparisons of antimicrobial resistance patterns of *Salmonella* and *Escherichia coli* isolated from feedlot cattle using two different sampling methods. *3rd Annual Phi Zeta Research Day of the Theta Chapter*. Fort Collins, Colorado, January 26, 2002.
77. Bolte DS, Hyatt DR, Morley PS, **Dargatz DA**. Comparison of antimicrobial resistant bacteria from dogs in a veterinary teaching hospital. *3rd Annual Phi Zeta Research Day of the Theta Chapter*. Fort Collins, Colorado, January 26, 2002.
78. Chmielewski KE, Morley PS, **Dargatz DA**. Antimicrobial drug use in a veterinary teaching hospital. *3rd Annual Phi Zeta Research Day of the Theta Chapter*. Fort Collins, Colorado, January 26, 2002.
79. Fedorka-Cray PJ, Headrick ML, Salmone B, Anandaraman N, Rose B, Gray JT, **Dargatz DA**. Comparison of multiple antimicrobial resistance among *Salmonella* isolates of animal origin. *International Association for Food Protection Annual Meeting*. San Diego, California, June 30-July 3, 2002.
80. Headrick ML, Fedorka-Cray PJ, Gray JT, Salmone B, **Dargatz DA**, Hermosillo J, Ball T. Resistance to third generation cephalosporins among *Salmonella* isolates of food animal origin: NARMS 1997-2000. *International Association for Food Protection Annual Meeting*. San Diego, California, June 30-July 3, 2002.

81. Fedorka-Cray PJ, Headrick ML, Anadaraman N, Cray JT, **Dargatz DA**, Hermosillo J, Ball T. Multiple resistance among *Salmonella* isolates of animal origin from the National Antimicrobial Resistance Monitoring System--enteric bacteria 1997-2000. *International Conference on Emerging Infectious Diseases*. Atlanta, Georgia, March 24-27, 2002.
82. Traub-Dargatz JL, George JL, **Dargatz DA**, Morley PS, Southwood LL, Tillotson K. Antimicrobial use in equine surgical colic patients at veterinary teaching hospitals. *7th International Equine Colic Research Symposium*. Manchester, United Kingdom, July 14-16, 2002.
83. Traub-Dargatz JL, **Dargatz DA**. Judicious use of antimicrobials in large animal patients: concepts the veterinary practitioner should consider when selecting an antimicrobial regimen. *Auburn University College of Veterinary Medicine Annual Conference*. Auburn, Alabama, p. 43-54, 2002.
84. Traub-Dargatz JL, **Dargatz DA**. Antimicrobial resistance: what's the big deal? Importance of antimicrobial resistance to the large animal practitioner. *Auburn University College of Veterinary Medicine Annual Conference*. Auburn, Alabama, p. 55-62, 2002.
85. **Dargatz DA**. An update on Johne's disease. *Auburn University College of Veterinary Medicine Annual Conference*. Auburn, Alabama, p. 63-66, 2002.
86. Traub-Dargatz JL, **Dargatz DA**. Investigation of outbreaks of diarrhea in horses and foals with an emphasis on Salmonellosis. *Auburn University College of Veterinary Medicine Annual Conference*. Auburn, Alabama, p. 82-87, 2002.
87. Traub-Dargatz JL, **Dargatz DA**. Diagnostic test considerations with practical hints of interpretation of clinical pathologic parameters, serology and culture results. *Auburn University College of Veterinary Medicine Annual Conference*. Auburn, Alabama, p. 99-106, 2002.
88. **Dargatz DA**. Opportunities in cow-calf practice. *Auburn University College of Veterinary Medicine Annual Conference*. Auburn, Alabama, p. 116-120, 2002.
89. **Dargatz DA**. Food safety and cattle practice. *Auburn University College of Veterinary Medicine Annual Conference*. Auburn, Alabama, p. 128-131, 2002.
90. Traub-Dargatz JL, **Dargatz DA**. Investigation of outbreaks of infectious disease. *Auburn University College of Veterinary Medicine Annual Conference*. Auburn, Alabama, p. 132-137, 2002.
91. **Dargatz DA**, Akin G, Green A, Herrero M, Holland S, Kane A, Knowles D, McElwain T, Moser K, Ostlund E, Parker M, Schmidtman E, Seitzinger A, Schuler L, Stevens G, Tesar L, White L, Williams L, Wineland N, Walton T. The Bluetongue surveillance pilot project (BSPP): a study in 3 states. *106th Annual US Animal Health Association*



*Scientific Section*. St. Louis, Missouri, p. 92-93, October 17-24, 2002.

92. Traub-Dargatz JL, Kopral CA, **Dargatz DA**. Estimate of antimicrobial use in horses based on the National Animal Health Monitoring System's Equine '98 study. *83rd Annual Meeting Conference of Research Workers in Animal Diseases*. St. Louis, Missouri, #24, November 10-12, 2002.
93. **Dargatz DA**, Green AK, Parker MA, et al. The Bluetongue Sentinel Pilot Project (BSPP): a study in 3 states. *83rd Annual Meeting Conference of Research Workers in Animal Diseases*. St. Louis, Missouri, #33, November 10-12, 2002.
94. Loneragan GH, **Dargatz DA**, Morley PS, Smith MA. Trends in mortality ratios among cattle in U.S. feedlots. *83rd Annual Meeting Conference of Research Workers in Animal Diseases*. St. Louis, Missouri, #68, November 10-12, 2002.
95. Hyatt DR, Morley PS, **Dargatz DA**, Migliaccio A, Burgess B. The prevalence of *E. coli* among randomly selected enterics cultured from the feces of feedlot cattle. *83rd Annual Meeting Conference of Research Workers in Animal Diseases*. St. Louis, Missouri, #74, November 10-12, 2002.
96. Wagner BA, **Dargatz DA**, Salman MD, et al. Sampling techniques for antimicrobial susceptibility of enteric *Escherichia coli* recovered from feedlot cattle. *83rd Annual Meeting Conference of Research Workers in Animal Diseases*. St. Louis, Missouri, #75, November 10-12, 2002.
97. Hurwitch AS, Monke HJ, Wittum TE, Morley PS, **Dargatz DA**. Antimicrobial resistance patterns of enteric *Escherichia coli* and *Salmonella* recovered from Ohio dairy herds. *83rd Annual Meeting Conference of Research Workers in Animal Diseases*. St. Louis, Missouri, #87, November 10-12, 2002.
98. Bolte DS, Hyatt DR, Morley PS, **Dargatz DA**. Comparison of antimicrobial resistant bacteria from dogs in a veterinary teaching hospital. *83rd Annual Meeting Conference of Research Workers in Animal Diseases*. St. Louis, Missouri, #88, November 10-12, 2002.
99. Traub-Dargatz JL, **Dargatz DA**, Morley PS. Antimicrobial resistance: what's the big deal? *American Association of Equine Practitioners Annual Meeting*. Orlando, Florida, December 4-8, 2002, p. 138-145, 2002.
100. Morley PS, **Dargatz DA**, Lappin MR, Traub-Dargatz JL. Veterinarians and antimicrobial drug use. *Minnesota Dairy Health Conference*. St. Paul, Minnesota, p. 160-166, 2003.
101. Morley PS, **Dargatz DA**, Lappin MR, Traub-Dargatz JL. Food Animal Veterinarians and Antimicrobial Drug Use. *21st Annual American College of Veterinary Internal Medicine Forum*. Charlotte, North Carolina, p. 304-306, 2003.

102. Morley PS, **Dargatz DA**, Lappin MR, Traub-Dargatz JL. Companion Animal Veterinarians and Antimicrobial Drug Use. *21st Annual American College of Veterinary Internal Medicine Forum*. Charlotte, North Carolina, p. 156-158, 2003.
103. Morley PS, **Dargatz DA**, Chmielewski K. Evaluating Antimicrobial Drug Use in Small Animals. *21st Annual American College of Veterinary Internal Medicine Forum*. Charlotte, North Carolina, p. 731-732, 2003.
104. Spidel SJ, McCluskey BJ, **Dargatz DA**. Risk factors for fecal shedding of *Escherichia coli* O157 in 95 U.S. dairy operations in 2002. *84<sup>th</sup> Annual Meeting Conference of Research Workers in Animal Diseases*. Chicago, Illinois, #48, 2003.

## ELECTRONIC DISCUSSION PAPERS

1. Fedorka-Cray PJ, Miller MA, **Dargatz DA**, Wineland NE, Tollefson L. Prevalence/trends of quinolone resistance in *Salmonella* isolates from animals in the USA. WHO discussion group on the use of quinolones in food animals and potential impact on human health. May 1998.

## POSTERS

1. Fedorka-Cray PJ, Holcomb HL, Tollefson L, **Dargatz DA**. Antimicrobial susceptibility of *Salmonella* isolates of veterinary origin. *American Society of Microbiologists Annual Meeting*, P48, p 444. 1997.
2. **Dargatz DA**, Fedorka-Cray PJ. *Salmonella* shedding by feedlot cattle in the United States. *International Symposium on Veterinary Epidemiology and Economics (ISVEE)*. Paris, France, July 1997.
3. Fedorka-Cray PJ, Petersen KE, **Dargatz DA**, Tollefson L, Wineland NE, Headrick M, Hollinger K, Ferris K. Antimicrobial susceptibility monitoring. *Conference on The Role of Agriculture in Managing Antimicrobial Resistance*. Toronto, Ontario, October 1999.
4. Brooks MB, Morley PS, **Dargatz DA**, Hyatt DR, Salman MD. Antimicrobial susceptibility testing practices of veterinary diagnostic laboratories in the U.S.: findings from a survey. *3rd Annual Phi Zeta Research Day of the Theta Chapter*. Fort Collins, Colorado, January 26, 2002.
5. Fedorka-Cray PJ, Headrick ML, Anadaraman N, Gray TJ, **Dargatz DA**, Hermosillo J, Ball T. Multiple resistance among *Salmonella* isolates of animal origin from the National Antimicrobial Resistance Monitoring System--enteric bacteria 1997-2000. *International Association for Food Protection Annual Meeting*. San Diego, California, June 30-July 3, 2002.

## SEMINARS AND PAPERS PRESENTED

1. Colic in the horse. *Washington State University Equine Health Clinic*. Pullman, Washington, December 1982.
2. A potpourri of sheep conditions. *Northern Colorado Sheep Breeders*. Berthoud, Colorado, April 4, 1985.
3. Flock health management; 2) Real time ultrasound diagnosis of pregnancy in sheep demonstration. *Colorado Front Range Sheep Day*. Fort Collins, Colorado, September 18, 1985.
4. Periparturient problems of sheep. *Northern Colorado Sheep Breeders*. Berthoud, Colorado, November 7, 1985.
5. The changing role of the food animal practitioner in animal production. *Student AABP*. Colorado State University, Fort Collins, Colorado, November 6, 1985.
6. Ovine contagious foot rot--clinical trials in treatment and prevention. *47th Annual Conference for Veterinarians*. Colorado State University, Fort Collins, Colorado, January 12, 1986.
7. Castration of the llama; 2) Cutting of fighting teeth of the llama; 3) Wet laboratory: techniques with llamas. *Llama Medicine Workshop for Veterinarians*. Colorado State University, Fort Collins, Colorado, January 16, 1986.
8. Antibiotic therapy of *Brucella ovis* infections in rams. *48th Annual Conference for Veterinarians*. Colorado State University, Fort Collins, Colorado, January 12, 1987.
9. Antibiotic therapy of *Brucella ovis* infections in rams; 2) The use of decision tree analysis to suggest an optimum therapy/prevention program for contagious foot rot in sheep. *8th Annual Western Food Animal Disease Research Conference*. March 2-4, 1987.
10. Decision tree analysis in food animal practice. *49th Annual Conference for Veterinarians*. Colorado State University, Fort Collins, Colorado, January 10, 1988.
11. Factors affecting health and productivity of swine in the farrowing to weaning period. *Conference of Research Workers in Animal Disease*. Chicago, Illinois, November 5, 1990.
12. The design of the swine '95 grower/finisher study. *16th Annual USDA Cooperative Food Safety Research Workshop*. Crystal City, Virginia, December 13, 1995.
13. Factors associated with VT+ *Escherichia coli* O157 in feedlots. *16th Annual USDA Cooperative Food Safety Research Workshop*. Crystal City, Virginia, December 13, 1995.
14. *Escherichia coli* O157 and *Salmonella* spp in feces of feedlot cattle. *58th Annual Conference for Veterinarians*. Fort Collins, Colorado, January 4-6, 1997.

15. What is NAHMS?; and an update on results of the Beef '97 study. *Colorado Cattlemen's Association*. Grand Junction, Colorado, June 9, 1997.
16. Factors associated with papillomatous digital dermatitis on U.S. dairy operations. *International Symposium on Veterinary Epidemiology and Economics*. Paris, France, July 1997.
17. Outbreak investigation and intervention. *British Equine Veterinary Association*. Sutton-Coldfield, England, July 1997.
18. Diagnostic testing: what do we need to keep in mind? *British Equine Veterinary Association*. Sutton-Coldfield, England, July 1997.
19. Food animal practitioners and the hot zone: an update on zoonotic concerns. *Colorado Veterinary Medical Association Annual Meeting*. Snowmass, Colorado, September 1997.
20. Reproductive management practices on U.S. cow-calf operations. *Society for Theriogenology*. Montreal, Quebec, September 1997.
21. *Salmonella typhimurium* DT104: an update. Food Safety Committee of the *American Association of Bovine Practitioners*. Montreal, Quebec, September 1997.
22. Diagnostic testing: what do we need to keep in mind? *Maryland Association of Equine Practitioners*. Bowie State College, Bowie, Maryland, September 24, 1997.
23. Results of USDA/NAHMS studies relative to foodborne pathogens--feedlot and dairy cattle. *National Cattlemen's Beef Association*. Beef Quality Assurance Advisory Board. Denver, Colorado, October 30, 1997.
24. Description of the U.S. monitoring systems--The National Antimicrobial Susceptibility Monitoring System. *Swine Health Summit*. Williamsburg, Virginia, November 12-13, 1997.
25. An update on beef related activities of the National Animal Health Monitoring System (NAHMS). *Academy of Veterinary Consultants*. Denver, Colorado, December 6, 1997.
26. Diagnostic testing: what do we need to keep in mind? *59th Annual Conference for Veterinarians*. Fort Collins, Colorado, January 10-12, 1998.
27. An overview of the NAHMS program and results from the Beef '97 study. Presentation to faculty and students, College of Veterinary Medicine. *Iowa State University*, Ames, Iowa, March 24, 1997.
28. The National Animal Health Reporting System (NAHRS). *Livestock Conservation Institute*. Des Moines, Iowa, March 25, 1998.

29. An overview of the National Animal Health Monitoring System (NAHMS). *For Pharmacia and Upjohn scientists*. Kalamazoo, Michigan, August 4, 1998.
30. A description of the National Animal Health Monitoring System (NAHMS). *Conference on Emerging Antibiotic Resistance in Food-Borne Enteric Pathogens: Epidemiology, Public Health Risks, and Control Strategies*. Athens, Georgia, August 30-September 3, 1998.
31. National Antimicrobial Susceptibility Monitoring. *Colorado Veterinary Medical Association Annual Meeting*. Snowmass, Colorado, September 19-23, 1998.
32. Antimicrobial susceptibility patterns of *Salmonella* isolates. *United States Animal Health Association Committee on Salmonella*. Minneapolis, Minnesota, October 5, 1998.
33. Descriptive epidemiology of bovine leukosis virus in U.S. dairy and beef cattle. *United States Animal Health Association Committee on Infectious Diseases of Cattle, Bison and Llamas*. Minneapolis, Minnesota, October 6, 1998.
34. Descriptive epidemiology of bovine leukosis virus in U.S. dairy and beef cattle. *United States Animal Health Association Committee on Bluetongue and Bovine Retroviruses*. Minneapolis, Minnesota, October 6, 1998.
35. Antimicrobial susceptibility patterns of *Salmonella* isolates. *United States Animal Health Association Committee on Public Health and Environmental Quality*. Minneapolis, Minnesota, October 7, 1998.
36. Antimicrobial susceptibility patterns of *Salmonella* isolates. *United States Animal Health Association General Session*. Minneapolis, Minnesota, October 7, 1998.
37. Antimicrobial susceptibility patterns of *Salmonella* isolates. *United States Animal Health Association Committee on Feed Safety*. Minneapolis, Minnesota, October 8, 1998.
38. Descriptive epidemiology of bovine leukosis virus in U.S. dairy and beef cattle. *United States Animal Health Association General Session*. Minneapolis, Minnesota, October 8, 1998.
39. Antimicrobial resistance and food borne pathogens. *Institute of Food Technologists Food Science Communicators*. Chicago, Illinois, October 24, 1998.
40. Johne's disease: epidemiology and prospects for control in cattle. *Western Canadian Association of Bovine Practitioners*. Abbotsford, British Columbia, January 16, 1999.
41. Johne's disease and U.S. cow-calf operations. *6th International Colloquium on Paratuberculosis*. Melbourne, Australia, February 15, 1999.

42. Diagnostic testing: what do we need to keep in mind? *AT Reid Refresher Course for Veterinarians on Equine Medicine*. Sydney, Australia, February 24, 1999.
43. A national system for monitoring antimicrobial resistance of enteric bacteria (NARMS-EB). *USGS Workshop on Animal Feeding Operations: Effects on Hydrologic Resources and the Environment*. Fort Collins, Colorado, September 1, 1999.
44. Antimicrobial susceptibility patterns of *Salmonella* isolates from Cattle. *United States Animal Health Association Committee on Salmonella*. San Diego, California, October 10, 1999.
45. National Antimicrobial Resistance Monitoring System: results of animal sampling. *United States Animal Health Association Committee on Public Health and Environmental Quality*. San Diego, California, October 12, 1999.
46. Results of Johne's testing in the Beef '97 study. *United States Animal Health Association Johne's Committee*. San Diego, California, October 12, 1999.
47. The National Antimicrobial Resistance Monitoring System for enteric bacteria (NARMS-EB). *United States Animal Health Association General Session*. San Diego, California, October 13, 1999.
48. Prevalence and distribution of *Salmonella* and their antimicrobial resistance patterns in beef cattle. *Faculty and Resident/Graduate Seminar*. Colorado State University, Fort Collins, Colorado, November 4, 1999.
49. Prevalence and distribution of *Salmonella* and their antimicrobial resistance patterns in beef cattle. *Conference of Research Workers in Animal Disease*. Chicago, Illinois, November 8, 1999.
50. Antimicrobial susceptibility patterns of *Salmonella* isolates from dairy cows. *Conference of Research Workers in Animal Disease*. Chicago, Illinois, November 8, 1999.
51. Risk factors associated with shedding of *Salmonella* by U.S. finishing hogs. *Conference of Research Workers in Animal Disease*. Chicago, Illinois, November 9, 1999.
52. The National Animal Health Monitoring System (NAHMS). *Gamma Sigma Delta Agriculture Honor Society*. Fort Collins, Colorado, January 20, 2000.
53. Bovine leukosis virus in U.S. dairy and beef cattle. *National Institute for Animal Agriculture*. Corpus Christi, Texas, April 11, 2000.
54. Overview of the USDA National Animal Health Monitoring System. Presentations to veterinary practitioners, livestock producers and government officials at four sites throughout Uruguay. Republic of Uruguay, May 6, 10-12, 2000.

55. Johne's disease: the epidemiologist's and internist's challenge. *American College of Veterinary Internal Medicine*. Seattle, Washington, May 27, 2000.
56. Health and management of cattle in United States feedlots. *9th International Society for Veterinary Epidemiology and Economics Symposium*. Breckenridge, Colorado, August 7, 2000.
57. Antimicrobial susceptibility patterns of *Salmonella* isolates from beef cattle. *9th International Society for Veterinary Epidemiology and Economics Symposium*. Breckenridge, Colorado, August 7, 2000.
58. The use of epidemiology to address complex issues. *A Workshop on Epidemiologic Methods and Approaches for Food Safety*. Birmingham, Alabama, October 18-19, 2000.
59. Uses of the NAHMS serum bank. *Cattle Health and Well-being Committee, National Cattleman's Beef Association Annual Meeting*. San Antonio, Texas, February 2, 2001.
60. Cow-calf practitioners and production efficiency. *73rd Annual Western Veterinary Conference*. Las Vegas, Nevada, February 12, 2001.
61. Food safety pathogens and cattle operations. *73rd Annual Western Veterinary Conference*. Las Vegas, Nevada, February 12, 2001.
62. The antimicrobial resistance issue and the cattle practitioner. *73rd Annual Western Veterinary Conference*. Las Vegas, Nevada, February 12, 2001.
63. Diagnostic testing in cattle practice. *73rd Annual Western Veterinary Conference*. Las Vegas, Nevada, February 12, 2001.
64. Studies from the National Animal Health Monitoring System. *National Antimicrobial Resistance Working Group Annual Meeting*. Rockville, Maryland, March 15, 2001.
65. Antimicrobial resistance: where's the problem? *19th Annual Veterinary Medical Forum, American College of Veterinary Internal Medicine*. Denver, Colorado, May 26, 2001.
66. Antimicrobial resistance: concerns for veterinary medicine. *19th Annual Veterinary Medical Forum, American College of Veterinary Internal Medicine*. Denver, Colorado, May 26, 2001.
67. Antimicrobial resistance: animals, food and the future. *19th Annual Veterinary Medical Forum, American College of Veterinary Internal Medicine*. Denver, Colorado, May 26, 2001.
68. Biosecurity for feedlot cattle operations. *Fort Dodge Seminar for Feedlot Operators*. Denver, Colorado, June 1, 2001.

69. Production efficiency: are there opportunities on cow-calf operations? *29th Buiatrics Congress*. Paysanda, Uruguay, June 16, 2001.
70. Biosecurity for feedlot cattle operations. *Merral 2001 Feedlot Consultants Educational Seminar*. Quebec City, Quebec, July 20, 2001.
71. Introduction of hazards on the farm: prevalence and distribution of potential pathogens on livestock operations. *Pathogen Reduction: A Scientific Dialogue*. Washington, DC, May 6, 2002.
72. A Bluetongue surveillance pilot project (BSPP) in 3 states. *National Cattlemen's Beef Association Mid-year Meeting*. Reno, Nevada, July 18, 2002.
73. A Bluetongue surveillance pilot project in three states. USAHA Bluetongue and Retroviruses Committee, *U.S. Animal Health Association Annual Meeting*. St. Louis, Missouri, October 21, 2002.
74. A Bluetongue surveillance pilot project in three states. USAHA General Session, *U.S. Animal Health Association Annual Meeting*. St. Louis, Missouri, October 21, 2002.
75. Judicious use of antimicrobials in large animal patients: concepts the veterinary practitioner should consider when selecting an antimicrobial regimen. *Auburn University College of Veterinary Medicine Annual Conference*. Auburn, Alabama, October 31-November 3, 2002, p. 43-54.
76. Antimicrobial resistance: what's the big deal? Importance of antimicrobial resistance to the large animal practitioner. *Auburn University College of Veterinary Medicine Annual Conference*. Auburn, Alabama, October 31-November 3, 2002, p. 55-62.
77. An update on Johne's disease. *Auburn University College of Veterinary Medicine Annual Conference*. Auburn, Alabama, October 31-November 3, 2002, p. 63-66.
78. Investigation of outbreaks of diarrhea in horses and foals with an emphasis on Salmonellosis. *Auburn University College of Veterinary Medicine Annual Conference*. Auburn, Alabama, October 31-November 3, 2002, p. 82-87.
79. Diagnostic test considerations with practical hints of interpretation of clinical pathologic parameters, serology and culture results. *Auburn University College of Veterinary Medicine Annual Conference*. Auburn, Alabama, October 31-November 3, 2002, p. 99-106.
80. Opportunities in cow-calf practice. *Auburn University College of Veterinary Medicine Annual Conference*. Auburn, Alabama, October 31-November 3, 2002, p. 116-120.
81. Food safety and cattle practice. *Auburn University College of Veterinary Medicine Annual Conference*. Auburn, Alabama, October 31-November 3, 2002, p. 128-131.



82. Investigation of outbreaks of infectious disease. *Auburn University College of Veterinary Medicine Annual Conference*. Auburn, Alabama, October 31-November 3, 2002, p. 132-137.
83. The Bluetongue Sentinel Pilot Project (BSPP): a study in 3 states. *83rd Annual Meeting Conference of Research Workers in Animal Diseases Proceedings*. St. Louis, Missouri, #33, November 10-12, 2002.
84. Concepts in biosecurity and infection control for cattle operations. *Western Canadian Association of Bovine Practitioners*. Calgary, Alberta, January 18, 2003.
85. Prevalence and antimicrobial resistance patterns of *Salmonella* from U.S. cattle operations. *Western Canadian Association of Bovine Practitioners*. Calgary, Alberta, January 18, 2003.

### **Key publications from government studies (primary author)**

#### **Descriptive Reports:**

1. Cow/calf Health and Productivity Audit: Part I: Beef cow/calf herd management practices in the United States. August 1993. N130.893, 24 p.
2. Cow/calf Health and Productivity Audit: Part II: Beef cow/calf reproductive and nutritional management practices. January 1994. N135.0194, 30 p.
3. Cow/calf Health and Productivity Audit: Part III: Beef cow/calf health and health management. January 1994. N135.0194, 16 p.
4. Cow/calf Health and Productivity Audit: Part IV: Beef cow/calf breeding management. March 1994. N139.0194, 12 p.
5. Cow/calf Health and Productivity Audit: Part V: Quality assurance profile. August 1994. N154.0894, 24 p.
6. Cattle on Feed Evaluation: Part I: Feedlot management practices. January 1995. N172.1294, 24 p.
7. Cattle on Feed Evaluation: Part II: Feedlot health management report. April 1995. N177.395, 20 p.
8. Beef '97: Part I: Reference of 1997 beef cow-calf management practices. June 1997. N233.697, 44 p.
9. Beef '97: Part II: Reference of 1997 beef cow-calf health and health management practices. July 1997. N238.797, 44 p.

10. Beef '97: Part III: Reference of 1997 beef cow-calf production management and disease control. January 1998. N247.198, 42 p.

Producer Info Sheets:

1. Branding practices in beef cow/calf herds. July 1993. N127.0793, 2 p.
2. Injection sites in U.S. beef cow/calf herds. August 1993. N131.793, 2 p.
3. Cryptosporidium and giardia in beef calves. January 1994. N137.0194, 2 p.
4. Animal identification practices in beef cow/calf herds. January 1994. N137.0194, 2 p.
5. Opportunities to improve calving management on beef cow/calf operations. March 1994. N141.0294, 2 p.
6. Sparse use of reproductive management technology for beef heifers and cows. May 1994. N144.0294, 2 p.
7. No evidence of a new weak calf syndrome. May 1994. N140.0394, 2 p.
8. Information sources for beef cow/calf producers. March 1994. N137.0194, 2 p.
9. Cattle death rates in small feedlots. May 1994. N134.594, 2 p.
10. 1992-1993: Branding and injection practices in beef cow/calf herds. December 1994. N170.1194, 2 p.
11. Feedlot quality assurance. January 1995. N169.1194, 2 p.
12. Environmental monitoring by feedlots. January 1995. N167.1194, 2 p.
13. Mexican-origin cattle in feedlots. January 1995. N168.1194, 2 p.
14. Vaccination practices for respiratory pathogens in U.S. feedlots. March 1995. N176.0295, 2 p.
15. Use of clostridial vaccines by feedlots. April 1994. N178.495, 2 p.
16. Injection practices in large feedlots. March 1995. N175.0295, 2 p.
17. The veterinarian as an information source for feedlot operators. February 1995. N174.0295, 2 p.
18. *Salmonella* shedding by feedlot cattle. May 1995. N181.595, 2 p.
19. *Escherichia coli* O157:H7 shedding by feedlot cattle. May 1995. N182.595, 2 p.

20. NAHMS Beef '97: a response to customer requests. October 1996. N215.1196, 2 p.

21. Identification in beef cow-calf herds. July 1997. N243.797, 2 p.

22. Information sources for cow-calf producers. July 1997. N241.797, 2 p.

**Key publications from government studies (secondary author)**

Descriptive Reports:

1. FDA/USDA/CDC National Antimicrobial Susceptibility Monitoring Program--  
Veterinary Isolates. April 1998, 22 p.

**Resident seminar--Colorado State University 1986-1988.**

1. Contagious foot rot in sheep, prospects for therapy and control
2. Decision tree analysis--a technique for the clinician and the economist
3. Antibiotic therapy of *Brucella ovis* infections in rams